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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,230	06/14/2001	Richard T. Shoemaker	RD8030 US NA	7555
23906	7590	06/18/2004	EXAMINER	
E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805			SALVATORE, LYNDA	
			ART UNIT	PAPER NUMBER
			1771	
DATE MAILED: 06/18/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/881,230	Applicant(s) SHOEMAKER ET AL. cf	
	Examiner Lynda M Salvatore	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-7, 9-11, 22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-3, 5-7, 9-11, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's request for continuing examination (RCE) filed 04/30/04, amendment, and accompanying remarks filed 03/23/04 have been fully considered and entered. Claims 1 and 9 have been amended as requested. Despite this advance, however, Applicant's amendments are not found to patently distinguish the claims over the prior art of record and Applicant's arguments are not found persuasive of patentability for reasons set forth herein below.

Election/Restrictions

2. Applicant's argument regarding the election of Group 1, claims 1-12 with traverse filed 08/28/03, the Examiner respectfully points out that because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election was treated as an election without traverse. (MPEP j 818.03(a))

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-3, 5-7,9,10,11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills et al., US 5,447,771, in view of Smith et al., US 3,852,946.

Applicant amended claims 1 and 9 to recite the limitation of a yarn denier ranging between about 15 and "about" 200 and argues a lack of motivation to combine the references of Mills et al., and Smith et al. This argument is not found persuasive. The Examiner maintains that Mills et al., teaches all of the limitations of the claimed bilobal S or Z shaped yarn with the exception of the denier range. The Examiner further maintains that it is proper to look to the

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prior art for a teaching of denier range. The patent issued to Smith et al., teaches voluminous yarns suitable for use in the same carpet field of endeavor as Mills et al., having a denier range within the claimed limits. The Examiner notes Applicant's arguments regarding the preferred denier range taught by Smith et al., however, it would be improper to ignore the broad range teaching of a denier of 100 or less though it be not necessarily preferred. It is the position the Examiner that motivation to combine Mills et al., with Smith et al., is found in the improved hand, feel, and appearance of the yarns provided by Smith et al.

To reiterate, the patent issued to Mills et al., teaches a filament having a substantially flat-sided rectangular-shaped central segment, arms and lobes, which further includes curved tip portions extending from each end of the central segment in opposite directions. The arms are connected to the central segment such that the angle formed between each of the arms and central segment is from 105 to 165 degrees. Mills et al., teaches that this orientation gives rise to the distinctive bilobal S or Z shapes (Column 4, 48-60). The denier per filament ranges from 3 to 30 (Column 5, 29-30). The filaments may be blended with each other or with other filaments having varied cross-sections. Preferably, the yarn comprises a blend of 40 to 60% by weight of S shaped filaments and 60 to 40% by weight of Z shaped filaments (Column 5, 18-25). Mills et al., further teaches a carpet fabric comprising a mixture of 20 to 80% multifilament yarns having a trilobal cross section and 80 to 20% multifilament yarns comprising a blend of Z and S shaped filaments (Column 5, 35-40). Suitable filament forming materials include thermoplastic polymers such as nylon 6, 6 (Column 3, 15-20). The filaments are also suitable in applications other than carpet manufacturing such as in textile or non-woven fields (Column 5, 15-17).

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Mills et al., fails to teach a yarn having a denier range of 15 to 200, however, the patent issued to Smith et al., teaches voluminous yarns having improved hand, feel, and appearance (Column 1, 34-36). The voluminous yarns taught by Smith et al., are employable for a variety of uses such as a commercial carpet yarn (Column 2, 1-5). Suitable yarn forming materials include nylon, polyethylene terephthalate, and polyolefins (Claims 5 and Column 8, 10-21). Smith et al., teaches that the novel yarn, which is excellent as the pile for carpeting, generally have a total denier ranging from *100 or less* to 3,000 or more (Column 8, 25-30).

Therefore, motivated by the improved hand, feel, and appearance it would have been obvious to one of ordinary skill in the art to employ the teachings of Smith et al., and form the carpets of Mills et al., with yarns having a total denier ranging from 15-200.

5. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills et al., US 5,447,771, in view of Smith et al., US 3,852,946 as applied to claims 1 or 9 and further in view of Abel et al., US 4,071,468.

The combination of Mills et al., and Smith et al., fails to teach applying a wetting agent to the filaments, however, it is commonly known in the art to employ wetting agents to various textile substrates. For example the patent issued to Abel et al., teaches a wetting and anti-foaming agent comprising up to 30 weight percent silicone oil for the purpose of variety of finishing and dying processes (Abstract and Column 7, 58- Column 8, 10). Specifically, wetting agents are employed to provide substrates with oil, water, and dirt repellency (Column 8, 1-8). Such repellencies are commonly known in the art and are typically found in carpets. In addition, in example 9, Abel et al., teaches a low foaming wetting agent particularly suited for carpet continuous dying (Column 14, 14-16).

Therefore, motivated by the wetting agent's ability to facilitate textile finishing and dying processes it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the teachings of Abel et al., and apply a wetting agent to finish the carpet of Mills et al., and Smith et al.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 571-272-1482. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1482. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 7th, 2004

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